

**SUBMIT ONE HARD COPY AND ONE ELECTRONIC COPY**

**WYOMING POLLUTANT DISCHARGE ELIMINATION  
SYSTEM**

**APPLICATION FOR PERMIT TO SURFACE DISCHARGE PRODUCED  
WATER FROM COAL BED METHANE DISCHARGES—MINOR  
MODIFICATIONS**

**Revised: August 8, 2016**

**PLEASE PRINT OR TYPE** (*Submission of illegible materials will result in return of the application to the applicant*)

**For Agency Use Only**

Application Number

**WY00** \_\_\_\_\_

Date Received:

\_\_\_\_\_  
(mo/day/yr)

**1. Provide WYPDES permit number and permit expiration date:**

Permit number \_\_\_\_\_ Expiration Date \_\_\_\_\_

**2. Describe all requested permit modifications** (i.e. add the Big George coal seam, remove three wells, etc...)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

(add additional requests as necessary)

**3. Identify the river basin in which the discharge occurs:**

- ☐ Belle Fourche      ☐ Cheyenne      ☐ Powder      ☐ Little Powder      ☐ Tongue  
☐ Other (identify) \_\_\_\_\_

**4. Provide current permit option as stated in permit:**

- ☐ Option 1A  
☐ Option 1B  
☐ Option 2

**5. General Facility Location:**      **Township(s)** \_\_\_\_\_ **Range(s)** \_\_\_\_\_  
**Immediate Receiving Stream(s)** \_\_\_\_\_

**6. Name of the facility producing the discharge (this is the facility name that appears on the WYPDES permit):**  
\_\_\_\_\_

WYPDES Permit # \_\_\_\_\_

7. **Company, Contact Name, mailing address, e-mail address, and telephone number** of the individual or company which owns the facility producing the discharge, and the person (consultant) responsible for permit submission.

<i>Company Contact Name</i>	<i>Consultant Contact Name</i>
<i>Company Name</i>	<i>Consultant Company Name</i>
<i>Mailing Address</i>	<i>Mailing Address</i>
<i>City, State, and Zip Code</i>	<i>City, State, and Zip Code</i>
<i>Telephone Number</i>	<i>Telephone Number</i>
<i>E-Mail Address</i>	<i>E-Mail Address</i>

8. **For ALL minor modifications:**

a. **Complete the attached Table 1.** Provide all the information requested in the table for each proposed discharge point or monitoring point. If proposing changes, **clearly** indicate the desired changes on the table. Additional tables may be attached. Use the format provided. Option 2 permits must include water quality monitoring station locations. “Non-Discharging” Option 2 permits (reservoirs capable of 50 year, 24 hour storm water containment) must include flow monitoring station locations. Option 1A and 1B permits must include containment unit monitoring station locations. Information related to reservoirs is only required if the facility’s water management plan includes reservoir containment.

b. **Complete the attached Table 2.** Provide all the information requested in the table for each well associated with this proposed discharge authorization. If proposing changes, **clearly** indicate the desired changes on the table. Additional tables may be attached. Use the format provided.

c. **Complete the attached Table 3.** Provide all the information requested in the table for each reservoir proposed for containment of CBM produced water. Specified locations refer to the approximate center of the reservoir. If proposing changes, **clearly** indicate the desired changes on the table. Additional tables may be attached. Use the format provided. Information related to reservoirs is only required if the facility’s water management plan includes reservoir containment.

d. **Attach a description and a clear, legible, detailed topographic map of the discharging facility.** Include the following:

- a. A legend
- b. Well locations
- c. Ponds
- d. Reservoirs
- e. Stock tanks
- f. Discharge points (outfalls)
- g. Immediate receiving streams
- h. Water quality monitoring stations
- i. Irrigation compliance points
- j. Location of nearest downstream irrigator.

- k. Section, Township, and Range information
- l. If proposing to use class 4C off-channel pits, include footprint outline of the proposed pits. To denote setback distance, include a distance marker from closest side of pit to the nearest water feature, floodplain, or stream alluvium. Identify latitude and longitude in decimal degrees (using a minimum of 6 decimal places) for each end point of the setback distance marker.

*If any of the above are not applicable please indicate in the description and include a brief explanation as to why the item is not applicable)*

**9. If requesting in this minor modification to permit discharge from a coal seam that is not currently permitted, provide the following information. If not applicable, please proceed to item 10.**

- a. **Currently permitted coal seam(s):**

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- b. **Coal seam(s) requesting to add to permit:**

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- c. A major modification and/or a mixing analysis may be required if the representative water quality analysis from the new coal seam indicates that the inclusion of the new effluent source may result in degradation of existing effluent quality. **Is the effluent quality from the new coal seam(s) equal to or better than the effluent quality from currently permitted coal seam(s)?**

☐yes      ☐no

**Please submit a lab analysis and complete information characterizing water quality from each coal seam identified in 9a. and 9b. above.** Provide the results of water analyses for a sample collected from a location representative of the quality of the water for all of the chemical parameters listed in the table below. The representative sample(s) must be submitted from a well(s) or outfall(s) at the facility identified in this application if that facility has discharged from the coal seam(s) being analyzed. If no discharge has occurred at the given facility for a particular coal seam(s), the sample must be collected from well(s) or outfall(s) within a twenty mile radius of the proposed facility's location, and from the same coal formation(s) and the same approximate depth(s) as proposed in this application. Explain why this sample is representative of the produced water to be discharged.

*Samples from co-mingled coal seams are acceptable as long as the sample(s) meet the following criteria:*

- A. all of the coal seams being proposed for development are represented in the co-mingled sample, with no contribution from coal seams not being proposed for development
- B. the ratio of each coal seam's contribution is approximately the same in the sample and the proposed development,
- C. documentation is provided to verify the criteria listed in A. and B.

The analyses must be conducted in accordance with approved EPA test procedures (40 CFR Part 136). Include a signed copy of your lab report that includes the following:

- a. detection limits
- b. results of each of the chemical parameters at the chemical state given below
- c. quarter/quarter, section, township and range of the sample collection location
- d. time and date of sample collection

- e. time and date of analysis for each parameter
- f. analyst's initials for each parameter
- g. detection limit for each parameter as achieved by the laboratory
- h. WYPDES permit number and outfall number, where the sample was collected.
- i. origin of produced water (coal seam and legal location of sample collection location)

Analyses must be provided in the units listed below.

<b><u>Parameter*</u></b> (See notes following the table on chemical states)	<b><u>Required Detection Limits and Required Units</u></b>
Alkalinity, Total	1 mg/l as CaCO <sub>3</sub>
Aluminum, Total Recoverable	50 µg/l
Arsenic, Total Recoverable	1 µg/l
Barium, Total Recoverable	100 µg/l
Bicarbonate	10 mg/l
Cadmium, Dissolved	5 µg/l
Calcium, Dissolved	50 µg/l, report as mg/l
Chlorides	5 mg/l
Copper, Dissolved	10 µg/l
Dissolved Solids, Total	5 mg/l
Fluoride, Dissolved	100 µg/l
Hardness, Total	10 mg/l as CaCO <sub>3</sub>
Iron, Dissolved	50 µg/l
Lead, Dissolved	2 µg/l
Magnesium, Dissolved	100 µg/l, report as mg/l
Manganese, Dissolved	50 µg/l
Mercury, Dissolved	1 µg/l
pH	to 0.1 pH unit
Radium 226, Total Recoverable	0.2 pCi/l
Radium 228, Total Recoverable**	0.2 pCi/l
Selenium, Total Recoverable	5 µg/l
Sodium Adsorption Ratio	Calculated as unadjusted ratio
Sodium, Dissolved	100 µg/l, report as mg/l
Specific Conductance	5 micromhos/cm
Sulfates	10 mg/l
Zinc, Dissolved	50 µg/l

*\*Discharges into drainages other than the Powder River geologic basin may require analysis of additional parameters, please contact the WDEQ for a separate list.*

*\*\*This parameter is only required for those discharges located within one stream mile of a class 2 water.*

- 10. If requesting to terminate an outfall(s) from this permit,** please attach photographic documentation that the outfall has been plugged and abandoned and is no longer discharging. If the outfall(s) was never constructed, please indicate this in the space provided below. If not applicable, please proceed to item 11.

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**11. If requesting to add new wells to this permit as part of this minor modification**, please submit the following additional information. If not applicable, please proceed to application signature.

- a. a water balance demonstrating that the daily maximum permitted flow limit at this facility will not be exceeded. The water balance should show average flow per well that is expected (using actual flow data), versus the daily maximum permitted flow limit as established in the most recent permit.

I (CEO or other authorized person) certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief, such information is true, complete, and accurate.

_____	_____
Printed Name of Person signing*	Title*

_____	_____
Signature	Date

**\*All permit applications must be signed in accordance with 40 CFR Part 122.22, “for” or “by” signatures are not acceptable.**

Section 35-11-901 of Wyoming Statutes provides that:

Any person who knowingly makes any false statement, representation, or certification in any application ... shall upon conviction be fined not more than \$10,000 or imprisoned for not more than one year, or both.

Mail this application to:

WYPDES Permits Section  
Department of Environmental Quality/WQD  
200 West 17<sup>th</sup> Street, Ste 400  
Cheyenne, WY 82002

TABLE 1: Outfall, Water Quality Monitoring Station, Containment Unit, and Flow Monitoring Station Location Information

Desired Changes (modifications and renewals only)	Discharge Point (Outfall) #	Immediate Receiving Stream	Mainstem (closest perennial water)	Distance from outfalls to mainstem	Quarter/Quarter	Section	Township	Range	Latitude (decimal degrees)	Longitude (decimal degrees)	County	Reservoir Name and type
	001											
	002											
	003											
	004											
	005											
	006											
	007											
Desired Changes (modifications and renewals only)	Station Name	Station Description			Quarter/Quarter	Section	Township	Range	Latitude (decimal degrees)	Longitude (decimal degrees)	Notes regarding water quality monitoring station types	
	UWQMS	Upstream mainstem water quality monitoring station									Only required for Option 2 outfalls	
	DWQMS	Downstream mainstem water quality monitoring station									Only required for Option 2 outfalls	
	TRIB1	Tributary water quality monitoring station									Only required for Option 2 outfalls, facility may require more than one TRIB station	
	CU001	Containment unit water quality monitoring station									Only required for option 1A, 1B, and non-discharging Option 2 permits	
	CU002	Containment unit water quality monitoring station									Separate containment unit monitoring stations are required for each containment unit	
	FM001	Flow monitoring station									Only required for non-discharging Option 2 permits	
	FM002	Flow monitoring station									Separate flow monitoring stations are required for each containment unit	

Please note that not all station types may be applicable for a particular facility. Additional spaces/pages may be added if necessary. Use the format provided. Please denote reservoir type(s) – on channel, off-channel, playa – in the appropriate column. Please note that reservoir information is not required if reservoir containment is not part of the facility’s water management plan – for instance, information about existing “incidental” downstream reservoirs is not required.

**TABLE 2: WELL INFORMATION**[illegible]

*Use format provided. Additional sheets may be included if necessary. AWAO = “all wells to all outfalls”*

Total Number of Wells \_\_\_\_\_

WYPDES Permit # \_\_\_\_\_

TABLE 3: RESERVOIR INFORMATION										
Desired Changes (modifications and renewals only)	Reservoir Name	Reservoir Storage Volume (acre/feet)	SEO Permit #	SEO Reservoir Requirements	Legal Location (QQ, Section Township, Range)				Geographic Location (Latitude and Longitude, Decimal Degrees)	
					Quarter- Quarter	Section	Township	Range	Latitude	Longitude

Additional spaces/tables may be included as necessary. Use the format provided. *Please note that reservoir information is not required if reservoir containment is not part of the facility’s water management plan – for instance, information about existing “incidental” downstream reservoirs is not required.*



## APPLICATION INSTRUCTIONS

1. Please provide as much information as possible on the application form. Additional spaces may be inserted in the application form to accommodate additional information. Please keep attachments to a minimum.
2. Do NOT separate any portion of the application, including the following tables. All supplemental information should be attached **following** the permit application. Use of cover sheets should be restricted to supplemental information **ONLY**.
3. Do not staple or bind any of the permit application materials. Only binder clips or paper clips should be used to separate or bind materials.
4. While the WDEQ allows permittees to reference previously completed works, please ascertain that the item being referenced is available to DEQ personnel for review during the permit application process. DEQ personnel may request copies of referenced works if not available for review. Information easily incorporated into the permit application may not be referenced (for example, the names and addresses of downstream irrigators).
5. Please place all oversized pages at the back (END) of the permit application materials. This aids in scanning and/or copying of the permit application materials.
6. If at all possible, the WYPDES program would appreciate the inclusion of an electronic version of the permit application, either on CD or floppy diskette, including any supplemental permit application materials. Inclusion of an electronic version of the permit application speeds permit processing. In addition, the WYPDES program would appreciate the inclusion of an electronic version of the outfall location table (Table 1 in the permit application), in either Word (.doc) or Excel (.xls) format for inclusion in the draft permit document. Inclusion of this information speeds permit drafting.
7. Please include WYPDES permit number on each page of this application and on all supporting documentation.
8. Please note that incomplete applications will be returned to the permittee.
9. In order for the WYPDES Program and other agencies to coordinate on reservoir bonding and permitting, permittees are required to utilize and maintain unique reservoir names for each reservoir used to contain CBM produced water. However, bonding is not required for minor modifications.
10. Please review all information prior to submission to ensure that materials have not been inadvertently omitted, all copies are legible, and that the permit application materials were signed by the appropriate company signatory.